

WHAT IS CLAIMED IS:

Sub A1 1. A method for generating a unique call termination alert tone responsive to a terminated call in a composite cellular terminal providing one or more service options, the method comprising the steps of:

5 setting and storing said unique call termination alert tone for each of said one or more service options;

recognizing a service option from a received paging message;

retrieving a call termination alert tone corresponding to the recognized service option; and

generating the retrieved call termination alert tone.

2. The method as claimed in claim 1, wherein said service options comprise a voice call service, an asynchronous data service, a facsimile service, a short message service, a packet data service and a CDPD (Cellular Digital Packet Data) service.

Sub A2 15 3. A method for displaying a unique call termination display message responsive to a terminated call in a composite cellular terminal providing one or more service options, the method comprising the steps of:

setting and storing said unique call termination display messages for each of

said one or more service options;

determining whether the received paging message is for the composite cellular terminal;

5 recognizing a service option from the received paging message when the received paging message is for the composite cellular terminal;

retrieving a call termination display message corresponding to the recognized service option; and

displaying the call termination display message.

4. The method as claimed in claim 3, wherein said service options comprise a voice call service, an asynchronous data service, a facsimile service, a short message service, a packet data service and a CDPD service.

15 *Sub A3* 5. A method for issuing a unique call termination alert tone and a unique call termination display message according to types of terminated calls in a composite cellular terminal providing one or more service options, the method comprising the steps of:

setting and storing a unique call termination alert tone for each of said provided one or more service options;

setting and storing a unique call termination display message for each of said provided one or more service options;

recognizing a service option from a received paging message;

retrieving a call termination alert tone corresponding to the recognized service option;

generating the retrieved call termination alert tone;

retrieving a call termination display message corresponding to the recognized service option; and

displaying the call termination display message.

6. The method as claimed in claim 5, wherein said step of setting and storing a unique call termination alert tone for each of said provided service options further comprises the steps of:

displaying a list of said one or more service options upon reception of a call termination alert tone setting key input;

selecting one of the displayed one or more service options in response to a user's key input;

displaying a list of call termination alert tones;

selecting one of the displayed call termination alert tones in response to a user's key input;

matching the selected call termination alert tone to the selected service option; generating the selected call termination alert tone; and

storing the selected call termination alert tone in association with the selected service option upon reception of a confirmation key input.

7. The method as claimed in claim 5, wherein said step of setting the call termination display messages comprises the steps of:

displaying said one or more service options upon reception of a call termination;

selecting one of the service options in response to a user's key input;

displaying a message requesting a user to input a call termination display message;

displaying a call termination display message input by the user; and

storing the input call termination display message in association with the selected service option upon reception of a confirmation key.

8. The method as claimed in claim 5, wherein said service options comprise a voice call service, an asynchronous data service, a facsimile service, a short message service, a packet data service and a CDPD service.

Sub
A4
5 9. A composite cellular terminal for generating a unique call termination alert tone responsive to a received paging message having a recognized service option, the composite cellular terminal comprising:

means for setting and storing said unique call termination alert tone for each of said one or more service options;

means for recognizing a service option from a received paging message;

means for retrieving a call termination alert tone corresponding to the recognized service option; and

means for generating the retrieved call termination alert tone.

10. A composite cellular terminal for generating a unique call termination display message responsive to a received paging message having a recognized service option, the composite cellular terminal comprising:

means for setting and storing said unique call termination display messages for each of said one or more service options;

means for determining whether the received paging message is for the composite cellular terminal;

means for recognizing a service option from the received paging message when the received paging message is for the composite cellular terminal;

means for retrieving a call termination display message corresponding to the recognized service option; and

5 means for displaying the call termination display message.

11. A composite cellular terminal for generating a unique call termination display message responsive to a received paging message having a recognized service option, the composite cellular terminal comprising:

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a first CPU for controlling the overall operation of a mobile telephone section, and for performing data communication with a personal digital assistant (PDA) section;

a program memory, operatively coupled to the first CPU for storing one or more programs;

15 a data memory, operatively coupled to the first CPU for storing data generated during operation of the mobile telephone section;

a non-volatile memory, operatively coupled to the first CPU for storing phone numbers, system parameters, and for speed dialing; and

a communication block for performing data communications with a base terminal.

12. The apparatus of claim 11, wherein the communication block further comprises:

an RF frequency module for bandpass filtering the RF transmission signal at a transmission frequency band, and for amplifying a transmission signal for radiation through an antenna;

a frequency conversion module for up/down conversion of transmission data;

a modulation/demodulation module for modulating the coded transmission data; and

a signal processing module for encoding transmission data.

13. The apparatus of claim 11, wherein the personal digital assistant section (PDA) section further comprises:

a second CPU for controlling the overall operations of the PDA section;

a program memory for storing one or more programs;

a data memory for storing data generated during operation of the PDA section; and

a non-volatile memory for storing information to be registered in the PDA section, and information input during data communication with the mobile telephone section.